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REMARKS

This response is intended as a full and complete response to the final Office Action mailed June 15, 2005. In the Office Action, the Examiner notes that claims 1-23 are pending of which claims 1-23 stands rejected. By this response, claims 4, 6, 10, 12, 16, and 19-23 are amended. The claims 5, 11, and 17-18, continue unamended. Claims 1-3, 7-9, and 13-15 are hereby cancelled.

In view of both the amendments presented above and the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

REJECTIONS

35 U.S.C. §103(a)

Claims 1-2, 7-8, 13-14, and 19-21

The Examiner has rejected claims 1-2, 7-8, 13-14, and 19-21 under 35 U.S.C. §103(a) as being unpatentable over Adams (US006378130B1) in view of Gotwald (US005987518A).

The Applicant has herein cancelled claims 1-3, 7-9, and 13-15. As such, Applicant respectfully submits that the Examiner's rejection of claims 1-2, 7-8, and 13-14 is moot. The Applicant respectfully traverses Examiner's rejection of claims 19-21. Since claims 19-21 recite limitations substantially similar to the limitations of claim 4, Applicant respectfully submits that claims 19-21 are patentable for at least the reasons discussed herein with respect to claim 4.

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Claims 3, 9, 15, and 22-23

The Examiner has rejected claims 3, 9, 15, and 22-23 under 35 U.S.C. §103(a) as being unpatentable over Adams (US006378130B1) in view of Gotwald (US005987518A) and further in view of Banker et al. (US005497187A).

The Applicant has herein cancelled claims 1-3, 7-9, and 13-15. As such, Applicant respectfully submits that the Examiner's rejection of claims 3, 9, and 15 is moot. The Applicant respectfully traverses Examiner's rejection of claims 22-23. Claims 22-23 depend from claim 21 and recite additional limitations therefor. Since claim 21 recites limitations substantially similar to the limitations of claim 4, Applicant respectfully submits that claim 21 is patentable for at least the reasons discussed herein with respect to claim 4.

Claims 4-6, 10-12, and 16-18

The Examiner has rejected claims 4-6, 10-12, and 16-18 under 35 U.S.C. §103(a) as being unpatentable over Adams (US006378130B1) in view of Gotwald (US005987518A) and further in view of Banker et al. (US005497187A). Applicant respectfully traverses the rejection.

In general, Adams discloses a media server for distributing media assets (e.g., video, Web browsing, etc.) from a headend to a plurality of subscriber terminals in response to a request from each of such terminals. In particular, Adams shows a subscriber terminal (Fig. 3) which has two tuners for receiving signals: an in band tuner 41 and an out of band tuner 42. The in-band tuner 41 receives both analog and digital video MPEG signals. The out of band tuner 42 receives only downstream digital IP datagram messages from the headend. (Adams, Col. 5, Lines 16-18). The out-of-band transmitter 43 transmits upstream IP datagram messages to the headend. (Adams, Col. 5, Lines 40-45). As such, Adams merely describes a conventional system with one-way in-band video transmission and two-way out of band data transmission. Adams is completely devoid of any teaching or suggestion of transmitting IP datagram messages using the in-band tuner.

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In general, Gotwald shows a system for communicating IP data on in-band MPEG video channels. As taught in Gotwald, transport of IP data over an in-band MPEG channel is performed by reformatting the IP protocol to fit within the MPEG-2 transport protocol. As such, Gotwald teaches that IP data is transmitted in-band using the MPEG-2 protocol. Gotwald is completely devoid of any teaching or suggestion of the transmission of IP data using out-of-band channels. In fact, Gotwald is completely devoid of any teaching or suggestion of any out-of-band transmissions in general.

As conceded by the Examiner, however, Adams and Gotwald, alone or in combination, fail to teach or suggest Applicant's invention of at least claim 4, as a whole. (Office Action, Pg. 6-7). Namely, as conceded by the Examiner, Adams in view of Gotwald fails to teach or suggest at least the limitations of "said channel resource request representing a channel change at said settop box from one of the multiplexed digital video channels in said first in-band video channel to one of the multiplexed digital video channels in said second in-band video channel; determining whether said second in-band video channel has an available communication channel for transporting IP packet data in said second in-band video channel using IP over MPEG data packets; selecting a selected communication channel at said headend by selecting one of: said available communication channel if said second in-band video channel has the available communication channel for transporting IP packet data in said second in-band video channel; and one of the at least one out-of-band communication channel in said out-of-band region of said digital video television communication system if said second in-band video channel does not have the available communication channel for transporting IP packet data in said second in-band video channel," as taught in Applicant's invention of at least claim 4.

Furthermore, Banker fails to bridge the substantial gap as between Adams and Gotwald and Applicant's invention of at least claim 4. In general, Banker teaches the use of in-band audio, in-band video, and out-of-band signals for transmitting data in a cable television system. (Banker, Abstract). In particular, Banker teaches that the additional means of data transmission from the headend is

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utilization of portions of the vertical blanking interval of the video picture signal. (Banker, Col. 3, Lines 5-10). Banker does not teach that the in-band video channel has a plurality of multiplexed video channels such that an additional data communication channel for transporting IP data may be multiplexed with the video channels, as taught in Applicant's invention of at least claim 4. Rather, Banker merely teaches that portions of a vertical blanking interval of a video picture signal may be used for transmitting additional information. The use of a vertical blanking interval for transmitting additional audio, video and program guide information, as taught in Banker, is simply not use of an available data communications channel for transporting IP data using IP over MPEG data packets, as taught in Applicant's invention of at least claim 4.

Moreover, the additional information of Banker merely includes additional audio and video data, program channel guide services, and other services. Banker is completely devoid of any teaching or suggestion of using in-band video channels or out-of-band channels for transporting IP data. Furthermore, Banker is completely devoid of any teaching or suggestion of using in-band video channels or out-of-band channels for transporting MPEG data. As such, Banker must also be completely devoid of any teaching or suggestion of using in-band video channels or out-of-band channels for transporting IP data using a plurality of IP over MPEG packets, as taught in Applicant's invention of at least claim 4.

Furthermore, in the Office Action, the Examiner cites a specific portion of Banker for teaching the selection of an available communications channel in a second in-band video channel or an out-of-band channel for data transmission. (Office Action, pg. 7-8). The portion of Banker cited by the Examiner, however, merely teaches that the selection between transmission over in-band and out-of-band channels is performed according to the urgency of the data to be transmitted or queue occupancy. In particular, Banker specifically teaches that the "headend controller 130, for example, may determine that the queue for outgoing in-band data transactions is so great that out-of-band data transmission is a more expedient mode of transmission...a scrambler or data inserter may meet with a similar full

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queue or other situation in which the data transaction is urgent...." (Banker, Col. 8, Lines 8-10).

In other words, as taught in Banker, out-of-band transmission is not used when there is insufficient capacity in the in-band channel for transporting data. Rather, out-of-band transmission is used in response to large queue delays when a data transaction is urgent. The transmission of data over an out-of-band channel based on queue occupancy or data urgency, as taught in Banker, is not transmission of data over an out-of-band channel in response to a determination during a switch from a first in-band video channel to a second in-band video channel that the second in-band video channel does not have sufficient capacity to transport IP data with the multiplexed digital video signals transmitted in the second in-band video channel, as taught in Applicant's invention of at least claim 4. Furthermore, Banker is completely devoid of any teaching or suggestion of selecting an available data communication channel in a second in-band video channel when the data communication channel is available and selecting an out of-band communication channel when the data communication channel is not available, as taught in Applicant's invention of at least claim 4.

Moreover, the teachings of Adams and Gotwald cannot be operably combined with the teachings of Banker. As described herein, Adams teaches a system in which MPEG-2 digital video is transmitted over in-band channels and IP datagram messages are transmitted over out-of-band channels. Furthermore, Gotwald teaches that IP data is transmitted in-band using the MPEG-2 protocol. Gotwald is completely devoid of any teaching or suggestion of out-of-band transmission. As such, Adams and Gotwald both teach systems in which there is no choice between the information transmitted in-band and the information transmitted out-of-band. By contrast, Banker teaches a system in which there is a choice between transmission of information using in-band and out-of-band channels. As such, the fixed transmission systems of Adams and Gotwald cannot be combined with the selective transmission system of Banker.

Furthermore, for at least the reasons discussed herein, even if the cited references could be combined as the Examiner suggests (which Applicant maintains

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the references cannot be operably combined), the combination of the references does not result in the claimed combinations. Moreover, since the selective transmission system of Banker performs the selection between in-band and out-of band transmission in a completely different manner than, and in response to completely different conditions than, the teachings of Applicant's invention of at least claim 4, Applicant submits that Adams, Gotwald, and Banker, alone or in any permissible combination, fail to teach Applicant's invention of at least claim 4. As such, Applicant respectfully submits that Adams, Gotwald, and Banker, alone or in combination, fail to teach or suggest Applicant's invention, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). Adams, Gotwald, and Banker, alone or in combination, fail to teach or suggest the Applicant's invention as a whole.

As such, Applicant submits that independent claim 4 is non-obvious over Adams in view of Gotwald and further in view of Banker under 35 U.S.C. §103(a) and is patentable thereunder. Furthermore, Applicant's independent claims 10, 16, and 19-21 recite features similar to the relevant features recited in independent claim 4. Thus, Applicant submits that claims 10, 16, and 19-21 are also non-obvious over Adams in view of Gotwald further in view of Banker under 35 U.S.C. §103(a) and are patentable thereunder.

Furthermore, claims 5-6, 11-12, 17-18, and 22-23 depend, either directly or indirectly, from independent claims 4, 10, 16, and 19, and recite additional features therefor. As such, and for at least the same reasons discussed above, Applicant submits that these dependent claims are also non-obvious over Adams in view of Gotwald and further in view of Banker under 35 U.S.C. §103 and are

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patentable thereunder. Therefore, the Applicant respectfully requests that the rejections be withdrawn.

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CONCLUSION

Thus, Applicant submits that the claims are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited. If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

8/15/05

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